

Amendments to the Claims:

The following listing of claims replaces all prior listings of claims:

Listing of Claims:

1. (Currently Amended) A computer-implemented communication method, comprising:  
providing one or more requests for acknowledgement in an asynchronous request message transmitted from an application-level of a sender system, wherein each request for acknowledgement corresponds to at least one event related to the request message, the asynchronous request message for enterprise application-level processing of the asynchronous request message at a receiver system, the request message being in a format in accordance with extensible markup language format and being at a communication layer higher than an Open Systems Interconnection Basic Reference Model layer 3; and

transmitting the request message with the one or more requests for acknowledgement to the receiver system, the receiver system being an enterprise system providing services, the request to request one or more of the services of the receiver system to process the asynchronous request message, and the transmitting the request message comprising transmitting the request message in an exchange infrastructure for communication among components of collaborative business systems, the components comprising the sender system and the receiving system; and receiving an acknowledgment message responsive to the request message, the acknowledgment message being an application-level message sent by the receiver system of the request message, the acknowledgment message being in a format in accordance with extensible markup language format, the acknowledgment message sent to the sender system of the request message, and the acknowledgment message characterizing one or more states from application states comprising:

a state indicating the request message was processed correctly in an application of the receiver system,

a state indicating the request message processed with error in the application of the receiver system,

a state indicating processing of the request message canceled after error,

a state indicating a system error occurred during processing of the request message, and

a state indicating an outbound adapter of the receiver system does not support application acknowledgments.

2. (Original) The method in accordance with claim 1, wherein requesting an acknowledgement includes setting a flag in a header of the request message.

3. (Original) The method in accordance with claim 2, wherein the flag is set in a header of the asynchronous request message.

4. (Original) The method in accordance with claim 1, wherein the event includes a system error during transport of the request message to the receiver system.

5. (Original) The method in accordance with claim 1, wherein the event includes the receipt of the request message by the receiver system.

6. (Original) The method in accordance with claim 1, wherein the event includes the successful processing of the request message by an application associated with the receiver system.

7. (Original) The method in accordance with claim 1, wherein the event includes the erroneous processing of the request message by an application associated with the receiver system.

8. (Original) The method in accordance with claim 1, further comprising generating the acknowledgement message upon completion of the event.

9. (Original) The method in accordance with claim 8, further comprising transmitting the acknowledgement message to the sender system.

10. (Original) The method in accordance with claim 1, further comprising:  
generating a hoplist that includes a list of network components through which the request message is transmitted; and

transmitting an acknowledgement message related to each request for acknowledgement through network components corresponding to the hoplist.

11. (Original) The method in accordance with claim 1, further comprising:

splitting, at one or more network components between the sender system and the receiver system, a request message that is transmitted to one or more receiver systems into two or child messages, wherein each child message includes the one or more requests for acknowledgement; and

receiving an acknowledgement message related to event associated with each child message.

12. (Currently Amended) A computer-implemented communication method for acknowledging one or more events related to an asynchronous request message sent from a sender system to a receiver system, the method comprising:

receiving an asynchronous request message from the sender system, the asynchronous request message for ~~being an enterprise application-level message~~ enterprise application-level processing of the asynchronous request message at the receiver system;

determining, based on the asynchronous request message, whether an acknowledgement to an event associated with the asynchronous request message is requested; and

if an acknowledgement to the event associated with the asynchronous request message is requested, transmitting an asynchronous acknowledgement message to the sender system upon occurrence of the event, wherein the asynchronous acknowledgement message includes a result of the event and a reference to the asynchronous request message, the asynchronous acknowledgement message characterizing one or more states from application states comprising:

a state indicating the asynchronous request message was processed correctly in an application of the receiver system,

a state indicating the asynchronous request message processed with error in the application of the receiver system,

a state indicating processing of the asynchronous request message canceled after error,

a state indicating a system error occurred during processing of the asynchronous request message, and

a state indicating an outbound adapter of the receiver system does not support application acknowledgments.

13. (Original) The method in accordance with claim 12, wherein the event corresponds to one or more events selected from the event group that consists of:

the receipt of the asynchronous request message by the receiver system;  
a system error during transport of the request message to the receiver system;  
the successful processing of the request message; and/or  
the erroneous processing of the request message.

14. (Original) The method in accordance with claim 12, wherein the asynchronous acknowledgement message is generated by the receiver system, and further comprising receiving the asynchronous acknowledgement message from the receiver system.

15. (Original) The method in accordance with claim 14, further comprising matching the asynchronous acknowledgement message with the associated asynchronous request message.

16. (Original) The method in accordance with claim 15, wherein matching the asynchronous acknowledgement message with the associated asynchronous request message includes comparing the reference to the asynchronous request message with a message ID of a copy of the asynchronous request message.

17. (Original) The method in accordance with claim 12, wherein determining whether the sender system requests an acknowledgement to an event associated with the asynchronous request message includes reading a flag in a header of the asynchronous request message.

18. (Original) The method in accordance with claim 17, wherein the flag is set by the sender system.

19. (Currently Amended) A system for asynchronous communication between a sender system and a receiver system, comprising:

a forward pipeline for transmitting asynchronous request messages from the sender system to the receiver system, the asynchronous request messages being enterprise application-level messages for enterprise application-level processing of the asynchronous request messages at the receiver system; and

a backward pipeline for transmitting asynchronous acknowledgement messages from the receiver system to the sender system, wherein each acknowledgement message includes a reference to a request message and a result of an event associated with the request message, the asynchronous acknowledgement messages characterizing one or more states from application states comprising:

a state indicating an asynchronous request message was processed correctly in an application of the receiver system,

a state indicating the asynchronous request message processed with error in the application of the receiver system,

a state indicating processing of the asynchronous request message canceled after error,

a state indicating a system error occurred during processing of the asynchronous request message, and

a state indicating an outbound adapter of the receiver system does not support application acknowledgments.

20. (Original) The system in accordance with claim 19, further comprising an enterprise application integrator hosted on a server, and wherein the forward pipeline includes a first HTTP connection from the sender system to the server and a second HTTP connection from the server to the receiver system.

21. (Original) The system in accordance with claim 19, wherein the backward pipeline includes a first HTTP connection from the receiver system to the server and a second HTTP connection from the server to the sender system.

22. (Original) The system in accordance with claim 19, further comprising a database associated with the forward and backward pipelines, for storing a copy of each transmitted request message and each transmitted acknowledgement message.

23. (Previously Presented) The method in accordance with claim 1, wherein the asynchronous request message comprises a plurality of requests comprising a first request for acknowledgement of a state of processing of the asynchronous request message at a software application of the receiver system and each of the requests is to result in a separate acknowledgement message.

24. (Previously Presented) The method in accordance with claim 23, wherein the first request is a request for acknowledgement of whether the software application failed to process the message.

25. (Previously Presented) The method in accordance with claim 1, wherein the components are web-based applications.

26. (Currently Amended) The method in accordance with claim 1, wherein the transmitting of the asynchronous request message is initiated by an outbound proxy call to an exchange engine to transmit the asynchronous request message to an exchange infrastructure server, ~~the asynchronous request message and~~ the exchange infrastructure stores duplicates of the asynchronous request message for reexecution in case of error, and an application of the sender system that causes the call of the outbound proxy continues processing information other than the asynchronous request message without an acknowledgment from the ~~receiver~~ receiver system ~~or of~~ status of the call.